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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 09/215,367      | 12/18/98    | BERTIN               | 2988-644            |

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IM22/1110

EXAMINER

ASINOVSKY, O

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1711

DATE MAILED: 11/10/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/215,367**

Applicant(s)

**Bertin**

Examiner  
**Olga Asinovsky**

Group Art Unit  
**1711**



☒ Responsive to communication(s) filed on Dec 18, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-33 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-33 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Veregin et al '5,610,250.

Veregin et al discloses a polymerization process to form a polymer having a narrow polydispersity. A process comprises heating a mixture of at least one polymerizable monomer compound, a free radical initiator, a stable free radical agent, and optionally a solvent to form a polymer with a monomer to polymer conversion of from about 50 to about 100%. See claim 1. A polymerizable monomer(s) includes methyl methacrylate and butyl methacrylate. See column 26, lines 28-29. A free radical initiator can be any free radical polymerization initiator and include a peroxide initiator. See column 22, lines 53-56. Reference discloses that a preferred initiator is one which has a one-hour half-life at about 60 to 95 C. See column 23, lines 9-11. The type of a radical initiator is depending on the working temperature. A di-t-butyl peroxide is within the scope of applicant's claimed dialkyl peroxide. See column 23, line 27. Veregin discloses that a stable free radical agent is used for controlling polymerization process of monomers or

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comonomers. See column 23, lines 45-47. The stable free radical compound or agent in Veregin's invention may be any known stable free radical agent. See column 17, line 10 through column 20. Reference discloses that the polymerization process can be used to prepare block copolymer resins and multiblock copolymers. See column 25, lines 15-28.

The difference between the present claims and Veregin's invention is the requirement in the present claims of the following relationship (SFR) : (INIT)  $\leq 0.15$  , wherein SFR is a number of moles of a stable free radical and INIT is a number of moles of a free radical initiator. Veregin discloses the molar ratio (SFR) : (INIT) is preferably in the range from about 0.4 to 4.0. See column 24, lines 8-15. However, this parameter can be varied since it is depending on functionality (type) of a stable free radical and a functionality of a free radical initiator. Therefore, it would have been obvious to one of ordinary skill in the art to use a process for radical polymerization of at least one polymerizable monomer in Veregin's invention in the presence of a stable free radical and a radical initiator wherein the relationship of (SFR) : (INIT)  $\leq 0.15$  can be obtained in the same ratio since the conditions of the polymerization are under control and the functionality of a stable free radical and a radical initiator can be selected within the same resulting expectation. The motivation is that it is within the skill of one in the art to select a stable radical compound and radical initiator in Veregin's invention for forming a polymer by radical polymerization wherein the relationship of (SFR) : (INIT)  $\leq 0.15$  can be obtained since the reference discloses that this ratio is depending on the selected stable free radical compound and a radical initiator.

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2. The disclosure is objected to because of the following informalities: In the specification at page 17, lines 20-21 a TEMPO compound is 2, 2, 6, 6-tetramethyl-1-piperidynyloxy.

Appropriate correction is required.

3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is (703) 308-0041. The examiner can normally be reached on Monday to Friday from 8:00am to 4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (703) 308-2462. The fax phone number for this Group is (703) 305-5433.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

O.A.

OA

November 05, 1999

  
James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700